

A recent overview of trials found that calcium channel blockers significantly reduced strokes by 13% (2% to 23%) compared with diuretics and β blockers but increased the incidence of coronary heart disease by 12% (0% to 26%) and possibly heart failure by 12% (-5% to 33%).¹² A large trial suggests that the α agonist doxazosin increases the risk of cardiovascular events, particularly congestive heart failure, compared with chlorthalidone.¹⁹ One systematic review of nine case-control and three cohort studies reported that long term use of a diuretic about doubles the risk of renal cell carcinoma.²⁶ Absolute risks cannot be calculated from these studies but are likely to be low, since renal cell carcinoma is uncommon.

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- Mulrow C, Pignone M. What are the elements of good treatment for hypertension? In: *Evidence-based hypertension*. London: BMJ Publishing Group, 2001:81-111.
- Gueyffier F, Froment A, Gouton M. New meta-analysis of treatment trials of hypertension: improving the estimate of therapeutic benefit. *J Hum Hypertens* 1996;10:1-8.
- Quan A, Kerlikowske K, Gueyffier F, Boissel JP. Efficacy of treating hypertension in women. *J Gen Intern Med* 1999;14:718-29.
- Beto JA, Bansal VK. Quality of life in treatment of hypertension. A meta-analysis of clinical trials. *Am J Hypertens* 1992;5:125-33.
- Croog SH, Levine S, Testa MA, Brown B, Bulpitt CJ, Jenkins CD, et al. The effects of antihypertensive therapy on the quality of life. *N Engl J Med* 1986;314:1657-64.
- Wright JM. Choosing a first-line drug in the management of elevated blood pressure: what is the evidence? 1. Thiazide diuretics. *Can Med Assoc J* 2000;163:57-60.
- Psaty BM, Smith NL, Siscovick DS, Koepsel TD, Weiss NS, Heckbert SR, et al. Health outcomes associated with antihypertensive therapies used as first-line agents. A systematic review and meta-analysis. *JAMA* 1997;277:739-45.
- Wright JM, Lee CH, Chambers GK. Systematic review of antihypertensive therapies: does the evidence assist in choosing a first-line drug? *Can Med Assoc J* 1999;161:25-32.
- Messerli FH, Grossman E, Goldbourt U. Are beta-blockers efficacious as first-line therapy for hypertension in the elderly? A systematic review. *JAMA* 1998;279:1903-7.
- Wright JM. Choosing a first-line drug in the management of elevated blood pressure: what is the evidence? 2. Beta-blockers. *Can Med Assoc J* 2000;163:188-92.
- Yusuf S, Sleight P, Pogue J, Bosch J, Davies R, Dagenais G. Effects of an angiotensin-converting-enzyme inhibitor, ramipril, on cardiovascular events in high-risk patients. The Heart Outcomes Prevention Evaluation Study Investigators [published erratum appears in *N Engl J Med* 2000;342:748]. *N Engl J Med* 2000;342:145-53.
- Blood Pressure Lowering Treatment Trialists' Collaboration. Effects of ACE inhibitors, calcium antagonists, and other blood pressure-lowering drugs on mortality and major cardiovascular morbidity. *Lancet* 2000;356:1955-64.
- Staessen JA, Fagard R, Thijs L, Celis H, Arabadzisz GG, Birkenhager WH, et al. Randomised double-blind comparison of placebo and active treatment for older patients with isolated systolic hypertension. The Systolic Hypertension in Europe (Syst-Eur) Trial Investigators. *Lancet* 1997;350:757-64.
- Hansson L, Lindholm LH, Ekblom T, Dahlöf B, Lanke J, Schersten B, et al. Randomised trial of old and new antihypertensive drugs in elderly patients: cardiovascular mortality and morbidity the Swedish Trial in Old Patients with Hypertension-2 study. *Lancet* 1999;354:1751-6.
- Hansson L, Lindholm LH, Niskanen L, Lanke J, Hedner T, Niklason A, et al. Effect of angiotensin-converting-enzyme inhibition compared with conventional therapy on cardiovascular morbidity and mortality in hypertension: the Captopril Prevention Project (CAPPP) randomised trial. *Lancet* 1999;353:611-6.
- Tatti P, Pahor M, Byington RP, Di Mauro P, Guarisco R, Strollo G, et al. Outcome results of the Fosinopril Versus Amlodipine Cardiovascular Events Randomized Trial (FACET) in patients with hypertension and NIDDM. *Diabetes Care* 1998;21:597-603.
- Estacio RO, Jeffers BW, Hiatt WR, Biggstaff SL, Gifford N, Schrier RW. The effect of nisoldipine as compared with enalapril on cardiovascular outcomes in patients with non-insulin-dependent diabetes and hypertension. *N Engl J Med* 1998;338:645-52.
- UK Prospective Diabetes Study Group. Efficacy of atenolol and captopril in reducing risk of macrovascular and microvascular complications in type 2 diabetes: UKPDS 39. *BMJ* 1998;317:713-20.
- ALLHAT Collaborative Research Group. Major cardiovascular events in hypertensive patients randomized to doxazosin vs chlorthalidone: the antihypertensive and lipid-lowering treatment to prevent heart attack trial (ALLHAT). *JAMA* 2000;283:1967-75.
- Brown MJ, Palmer CR, Castaigne A, De Leeuw PW, Mancia G, Rosenthal T, et al. Morbidity and mortality in patients randomised to double-blind treatment with a long-acting calcium-channel blocker or diuretic in the International Nifedipine GITS study: intervention as a goal in hypertension treatment (INSIGHT). *Lancet* 2000;356:366-72.
- Hansson L, Hedner T, Lund-Johansen P, Kjeldsen SE, Lindholm LH, Syversen JO, et al. Randomised trial of effects of calcium antagonists compared with diuretics and beta-blockers on cardiovascular morbidity and mortality in hypertension: the Nordic Diltiazem (NORDIL) study. *Lancet* 2000;356:359-65.
- Neaton JD, Grimm RH Jr, Prineas RJ, Stamler J, Grandits GA, Elmer PJ, et al. Treatment of mild hypertension study. Final results. Treatment of Mild Hypertension Study Research Group. *JAMA* 1993;270:713-24.
- Materson BJ, Reda DJ, Cushman WC, Massie BM, Freis ED, Kocher MS, et al. Single-drug therapy for hypertension in men. A comparison of six antihypertensive agents with placebo. The Department of Veterans Affairs Cooperative Study Group on Antihypertensive Agents [published erratum appears in *N Engl J Med* 1994;330:1689]. *N Engl J Med* 1993;328:914-21.
- Philipp T, Anlauf M, Distler A, Holzgreve H, Michaelis J, Wellek S. Randomised, double blind, multicentre comparison of hydrochlorothiazide, atenolol, nitrendipine, and enalapril in antihypertensive treatment: results of the HANE study. HANE Trial Research Group. *BMJ* 1997;315:154-9.
- Cutler JA. Calcium-channel blockers for hypertension—uncertainty continues. *N Engl J Med* 1998;338:679-81.
- Grossman E, Messerli FH, Goldbourt U. Does diuretic therapy increase the risk of renal cell carcinoma? *Am J Cardiol* 1999;83:1090-3.



The book *Evidence-Based Hypertension*, edited by Cynthia D Mulrow, can be purchased through the BMJ Bookshop (www.bmjbookshop.com).

The hidden handicap

I have a 70 decibel loss of hearing in my right ear, a result of the, fortunately unilateral, Ménière's syndrome that precipitated my premature retirement three and a half years ago. The sudden, unannounced, and disabling attacks of vertigo no longer occur, but I am left with persistent tinnitus in my left ear, together with the hearing impediment already mentioned. Fortunately I have no hearing loss in my right ear and can thus lead a fairly normal social life, except if there is sound originating from my right side and I am trying to converse with someone on my left. I have an NHS hearing aid, which is largely useless, although I appreciate that it would be of inestimable value if I had bilateral deafness. It works well only in a quiet room, which is exactly when I do not need it; in a noisy room it picks up every sound and presents a cacophonous jumble of sound to my ear.

I have been disappointed by the attitudes of others to my plight and particularly saddened by the fact that some of the offenders are members of my own

profession. When I try to be helpful in company by explaining my condition someone inevitably says "Pardon" while the rest of the company dissolve in laughter. It is difficult to behave with equanimity under such provocation. If I do not explain the situation, however, and subsequently have to ask that part of the conversation be repeated I am treated at best with impatience and at worst with contempt, even being asked on one occasion why I was not paying better attention.

I suspect that people behave like this because it is impossible to see when someone has a hearing problem. Blindness and other physical disabilities are much more obvious, and therefore promote sympathy in the observers. I remember being told, in my student days, that deafness is probably the greatest cause of social isolation, and I am prepared to believe this.

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